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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/975,863	10/12/2001	Christoph Menzel	RXSD 1013-1	2481

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EXAMINER	
TSAI, CAROL S W	

ART UNIT	PAPER NUMBER
2857	

DATE MAILED: 03/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/975,863	MENZEL ET AL.	
	Examiner	Art Unit	
	Carol S Tsai	2857	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 October 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *105* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-105* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *12 October 2001* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 2.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description:

"60", "62", and "64" at page 17, line 12.

"63" at page 17, line 13.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-3, 5-25, 27-40, and 42-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over U. S. Publication 2002/0103619 to Bizjak in view of U. S. Patent No. 5,754,666 to Nakagawa.

With respect to claims 1-3, 5, 17, 18, 22, 24, 25, 27, 28, 32-34, 39, 40, 42, and 46-48, Bizjak discloses a method for making a calibration sound, other than the audio resources on the device (see paragraphs 0066 and 0417); and executing a process using audio resources in the device to calibrate the device with reference to the calibration

sound, wherein said process includes determining a setting of the audio resources which results in production of a test sound by the device (see paragraphs 0073, 0238, 0242, 0258, 0286, 0301, 0331, 0398, and 0530), the masking sound having an audio spectrum matching a spectrum expected for the calibration sound (see paragraphs 0263, 0281, 0303, and 0420).

Bizjak does not disclose making by prompting a user using an item likely to be available to the user of the device.

Nakagawa teaches making by prompting a user using an item likely to be available to the user of the device (see col. 3, line 60 to col. 4, line 2 and col. 4, lines 25-33).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Bizjak's method to include making by prompting a user using an item likely to be available to the user of the device, as taught by Nakagawa, because the characteristics of such random noises which is artificially generated being in a higher frequency range exceeding over the higher limit of the reproducible frequency range or over the higher limit of the audible frequency range and can be added to the original audio signal in order to compensate for the signal components, which has been cut off (distal reproducing apparatus) or decreased (analog reproducing apparatus), from the original audio signals, and to obtain much more excellent qualified reproduced sound which can be sensed by the listener.

As to claims 6, 29, and 43, Bizjak also discloses generating a control signal to produce an audio stimulus on the device, the control signal being based upon said calibration, and resulting in said audio stimulus having a sound pressure level

within 10 dB of a predicted level (see paragraph 0519).

As to claims 7, 30, and 44, Bizjak also discloses displaying instructions to the user (see paragraph 0299).

As to claims 8, 10, 31, and 45, Bizjak does not disclose expressly displaying instructions to the user, the instructions including a description of a technique for making the calibration sound using the item, and a description of a process for controlling the device to generate a masking sound.

It is, however, considered inherent that Bizjak displays instructions to the user, the instructions including a description of a technique for making the calibration sound using the item, and a description of a process for controlling the device to generate a masking sound (see paragraph 0048), because such elements are known to be a necessary in order that the system can be calibrated (balanced) to allow noise compensation, and minimum and maximum volume levels can be set to enable dynamic range mapping.

As to claim 9, Bizjak in combination with Nakagawa do not disclose the item comprising a sheet of paper.

The Examiner takes Official Notice that item comprising a sheet of paper, is well known in the art.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Bizjak in combination with Nakagawa's method to include the item comprising a sheet of paper, in order that sound can be generated by rubbing or blowing the paper.

As to claims 11-16, Bizjak does not disclose making the calibration sound by folding a first piece of paper, laying the second piece of paper on a desk, and rubbing the

first sheet of paper on the second sheet of paper/striking the keyboard/rubbing the pencil on a surface/tapping the desk/dropping the coin on a surface/jingling the keychain.

Nakagawa teach sounds which are generated by beating, rubbing, or blowing or the similar sounds when the instruments are played (see col. 3, line 60 to col. 4, line 2 and col. 4, lines 25-33).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Bizjak in combination with Nakagawa 's method to include making the calibration sound by folding a first piece of paper, laying the second piece of paper on a desk, and rubbing the first sheet of paper on the second sheet of paper/striking the keyboard/rubbing the pencil on a surface/tapping the desk/dropping the coin on a surface/jingling the keychain, because it is well known in the art that a human being is cable to generate sounds in different ways.

As to claims 19, 20, 35, and 36, Bizjak also discloses determining if the user can hear the calibration sound, and if not, then executing an alternative process (see paragraph 0503).

As to claims 21 and 37, Bizjak also discloses at least one flow which is executed if an error condition occurs, that prompts the user to perform an act to correct a possible source of the error (see paragraphs 0060, 0268, and 285-0288).

As to claims 23 and 38, Bizjak also discloses the input including substantially randomly generated signals, and determining a setting for the audio resources at which the masking sound masks the calibration sound (see paragraph 0066).

4. Claims 4, 26, and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakagawa in view of Horn as applied to claims 1, 25, and 40 above, and further in view of U. S. Patent No. 6,047,074 to Zoels et al.

As noted above, with respect to claims 4, 26, and 41, Bizjak in combination with Nakagawa teach all the features of the claimed invention, but do not disclose instructing the user to signal completion of said process when a condition is achieved in which the masking sound masks the calibration sound, wherein said instructions use terminology semantically equivalent to "drowns out" to describe the condition.

Zoels et al. teach instructing the user to signal completion of said process when a condition is achieved in which the masking sound masks the calibration sound, wherein said instructions use terminology semantically equivalent to "drowns out" to describe the condition (see col. 2, line 36 to col. 3, line 43 and col. 4, line 15 to col. 6, line 8).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Nakagawa in combination with Horn's method to include instructing the user to signal completion of said process when a condition is achieved in which the masking sound masks the calibration sound, wherein said instructions use terminology semantically equivalent to "drowns out" to describe the condition, as taught by Zoels et al., in order that a person with normal hearing can employ the digital hearing aid as a communication device that, for example given over-sensitivity to loud useful signals, transforms these into a comfortable level range or reduces the unwanted noises present in the useful signal (see col. 4, lines 34-38).

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 49-51, 58, 59, 61-65, 72-82, 86, 88-92, and 99-105 are rejected under 35 U.S.C. 102(e) as being anticipated by U. S. Publication 2002/0103619 to Bizjak.

With respect to claims 49, 50, 58, 59, 72, 73, 77, 79, 80, 81, 86, 99, 103, and 105, Bizjak also discloses an apparatus comprising: a data Processor which executes instructions and a communication interface coupled to the processor (see Figs. 3a and 3b and paragraph 0237); and memory coupled to the data processor which stores instructions in a form readable by the data processor, the instructions specifying processes (see paragraphs 0308-0316) which establish a communication channel to a remote device across the communication interface (see Fig. 3a and 3b and paragraphs 0237); prompt a user of the remote device, using resources provided via said communication channel, to make a calibration sound, using something other than the audio resources on the device (see paragraphs 0066 and 0417); execute a calibration process using audio resources in the device to determine a calibration of the audio resources which results in production of a masking sound by the remote device which masks the calibration sound (see paragraphs 0073, 0238, 0242, 0258, 0286, 0301, 0331, 0398, and 0530); and execute a computer program to present a hearing test to the user of the remote device, wherein the

computer program comprises a routine, responsive to said calibration (see paragraphs 0254, 0272, 0503, 050, and 0547).

As to claims 51 and 82, Bizjak also discloses an N-alternative forced choice interaction (see paragraph 0503).

As to claims 61 and 88, Bizjak also discloses generating a control signal to produce an audio stimulus on the device, the control signal being based upon said calibration, and resulting in said audio stimulus having a sound pressure level within 10 dB of a predicted level (see paragraph 0519).

As to claims 62 and 89, Bizjak also discloses displaying instructions to the user (see paragraph 0299).

As to claims 63, 65, 90, and 92, Bizjak does not disclose expressly displaying instructions to the user, the instructions including a description of a technique for making the calibration sound using the item, and a description of a process for controlling the device to generate a masking sound.

It is, however, considered inherent that Bizjak displayes instructions to the user, the instructions including a description of a technique for making the calibration sound using the item, and a description of a process for controlling the device to generate a masking sound (see paragraph 0048), because such elements are known to be a necessary in order that the system can be calibrated (balanced) to allow noise compensation, and minimum and maximum volume levels can be set to enable dynamic range mapping.

As to claims 64 and 91, Bizjak in combination with Nakagawa do not disclose the item comprising a sheet of paper.

The Examiner takes Official Notice that item comprising a sheet of paper, is well known in the art.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Bizjak in combination with Nakagawa's method to include the item comprising a sheet of paper, in order that sound can be generated by rubbing or blowing the paper.

As to claims 74, 75, 100, and 101, Bizjak also discloses determining if the user can hear the calibration sound, and if not, then executing an alternative process (see paragraph 0503).

As to claims 76 and 102, Bizjak also discloses at least one flow which is executed if an error condition occurs, that prompts the user to perform an act to correct a possible source of the error (see paragraphs 0060, 0268, and 285-0288).

As to claims 78 and 104, Bizjak also discloses the input including substantially randomly generated signals, and determining a setting for the audio resources at which the masking sound masks the calibration sound (see paragraph 0066).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claims 52-57 and 83-85 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bizjak in view of U. S. Patent No. 6,556,826 to Johnson et al.

As noted above, with respect to claims 52-57 and 83-85, Bizjak discloses the claimed invention, except for a connection according to a standard transmission control protocol over a standard internet protocol (TCP/IP).

Johnson et al. teach a connection according to a standard transmission control protocol over a standard internet protocol (TCP/IP) (see col. 3, lines 20-27).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Bizjak's system to include a connection according to a standard transmission control protocol over a standard internet protocol (TCP/IP), as taught by Johnson et al., in order that information can be transferred or retrieved via the communication network.

9. Claims 60 and 87 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bizjak in view of U. S. Patent No. 6,047,074 to Zoels et al.

As noted above, with respect to claims 60 and 87, Bizjak disclose the claimed invention, except for instructing the user to signal completion of said process when a condition is achieved in which the masking sound masks the calibration sound, wherein said instructions use terminology semantically equivalent to "drowns out" to describe the condition.

Zoels et al. teach instructing the user to signal completion of said process when a condition is achieved in which the masking sound masks the calibration sound, wherein said instructions use terminology semantically equivalent to "drowns out" to describe the condition (see col. 2, line 36 to col. 3, line 43 and col. 4, line 15 to col. 6, line 8).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Bizjak's system to include instructing the user to signal completion of said process when a condition is achieved in which the masking sound masks the calibration sound, wherein said instructions use terminology semantically equivalent to "drowns out" to describe the condition, as taught by Zoels et al., in order that a person with normal hearing can employ the digital hearing aid as a communication device that, for example given over-sensitivity to loud useful signals, transforms these into a comfortable level range or reduces the unwanted noises present in the useful signal (see col. 4, lines 34-38).

10. Claims 66-71 and 93-98 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bizjak in view of U. S. Patent No. 5,754,666 to Nakagawa.

As noted above, with respect to claims 66-71 and 93-98, Bizjak disclose the claimed invention, except for making the calibration sound by folding a first piece of paper, laying the second piece of paper on a desk, and rubbing the first sheet of paper on the second sheet of paper/striking the keyboard/rubbing the pencil on a surface/tapping the desk/dropping the coin on a surface/jingling the keychain.

Nakagawa teach sounds which are generated by beating, rubbing, or blowing or the similar sounds when the instruments are played (see col. 3, line 60 to col. 4, line 2 and col. 4, lines 25-33).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Bizjak in combination with Nakagawa 's method to include making the calibration sound by folding a first piece of paper, laying the second

piece of paper on a desk, and rubbing the first sheet of paper on the second sheet of paper/striking the keyboard/rubbing the pencil on a surface/tapping the desk/dropping the coin on a surface/jingling the keychain, because it is well known in the art that a human being is cable to generate sounds in different ways.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Givens et al. disclose systems, methods and associated devices performing diagnostic hearing tests which use a computer network to allow interaction between a test administration site and one or a plurality of remote patient sites.

Fujino discloses a hearing aid that allows desired sound to be selectively heard and allows unnecessary sound not to be heard, and that can be used with no bars even in a situation like a meeting that requires a conversation with a plurality of persons.

Mouline discloses methods and systems for high quality computer based adaptation of audio data being shown.

Uvacek et al. disclose an adjustment method for a hearing device and an apparatus to do it being proposed, by which a model for the perception of a psycho-acoustic variable, especially of the loudness, is parametrized for a standard group of individuals as well as for an individual.

Davis discloses a tinnitus method and device for providing relief to a person suffering from the disturbing effects of tinnitus.

Calhoun et al. disclose a computer-implemented methods and apparatus for

remote cognitive and/or perceptual testing using a computer network having a remote computer geographically separate from an administering computer.

Hinderks discloses a system for recognizing the existence of and adjusting the psycho-acoustic parameters present in an audio digital CODEC.

Onishi et al. disclose a signal produced by a speaker being removed from a totaled sound of noise around the speaker and the signal from the speaker, thereby extracting correctly the noise around.

Hyatt discloses an improved computer system being implemented with an integrated circuit computer having integrated circuit (IC) memories and using a keyboard input and sound output to communicate with an operator.

Contact Information

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carol S. W. Tsai whose telephone number is (571) 272-2224. The examiner can normally be reached on Monday-Friday from 8:30 AM to 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc S. Hoff can be reached on (571) 272-2216. The fax number for TC 2800 is (703) 872-9306. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the TC 2800 receptionist whose telephone number is (571) 272-1585 or (571) 272-2800.

In order to reduce pendency and avoid potential delays, Group 2800 is encouraging FAXing of responses to Office actions directly into the Group at (703) 872-9306. This practice may be used for filing papers not requiring a fee. It may also be used

for filing papers which require a fee by applicants who authorize charges to a PTO deposit account. Please identify the examiner and art unit at the top of your cover sheet.

Papers submitted via FAX into Group 2800 will be promptly forwarded to the examiner.

Carol S. W. Tsai
Patent Examiner
Art Unit 2857

03/15/04